

CLAIMS

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1. A dynamic network node metrics reporting method, comprising:

probing a content delivery network (CDN) component for determined and undetermined ones of selected metric values characterizing the performance of said CDN component;

reporting said determined metric values to a recipient graphical display interface; and

repeating said probing and said reporting steps for said undetermined metric values.

2. The method according to claim 1, wherein said probing and said reporting step occurs in a first agent.

3. The method according to claim 2, wherein said repeating step occurs in a second agent.

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4. The method according the claim 3, wherein said reporting step comprises:

updating a first update message with said determined metric values resulting from said probing step initiated by said first agent; and

adding to said first update message, a predefined code, said predefined code relating to said undetermined values.

1 5. The method according to claim 4, wherein said repeating step comprises:  
2 updating a second update message with determined metric values  
3 resulting from said probing initiated by a second agent, said determined  
4 metrics corresponding to said undetermined metrics resulting from said probing  
5 initiated by said first agent; and  
6 adding a predefined code to said second update message, said  
7 predefined code relating to said determined metric values in said first update  
8 message.

1 6. The method according to claim 5, wherein values within said fields of said first  
2 and said second update message are used to update values within said recipient  
3 graphical display, where said graphical display is updated using said determined  
4 metric values.

1 7. The method according to claim 5, wherein said selected predefined code defines  
2 an action selected from the group consisting of disregarding a result from said  
3 probing step, indicating a problem with said probing step, and keeping an  
4 existing value of said metric without setting it.

12. The method according to claim 11, wherein said reporting step comprises:  
 updating a first update message with said determined metric values  
 resulting from said probing step initiated by said first agent; and

4 adding to said first update message a predefined code, said predefined  
5 code relating to said undetermined values.

1 13. The method according to claim 12, wherein said repeating step comprises:

2 updating a second update message with determined metric values  
3 resulting from said probing initiated by a second agent, said determined metrics  
4 corresponding to said undetermined metrics resulting from said probing initiated  
5 by said first agent; and

6 adding a predefined code to said second update message, said  
7 predefined code relating to said undetermined metric values in said first update  
8 message.

1 14. The method according to claim 13, wherein values within said fields of said first  
2 and said second update message are used to update values within said recipient  
3 graphical display, wherein said graphical display is updated using said  
4 determined metric values.

1 15. The method according to claim 13, wherein said selected predefined code  
2 defines an action selected from the group consisting of disregarding a result from  
3 said probing step, indicating a problem with said probing step, and keeping an  
4 existing value of said metric without setting it.

1 16. A machine readable storage having stored thereon, a computer program having  
2 a plurality of code sections, said code sections executable by a machine for  
3 causing the machine to perform the steps of:

4       probing a CDN component for determined and undetermined ones of  
5 selected metric values characterizing the performance of said CDN component,  
6 the code sections for reporting metrics for said CDN components;

7       reporting said determined metric values to a recipient graphical display  
8 interface; and

9       repeating said probing and said reporting steps for said undetermined  
0 metric values.

1 17. The machine readable storage according to claim 16, wherein said probing and  
2 said reporting step occurs in a first agent.

1 18. The machine readable storage according to claim 17, wherein said repeating  
2 step occurs in a second agent.

Sub 1 19. The machine readable storage according the claim 18, wherein said reporting  
2 step comprises:

3       updating a first update message with said determined metric values  
4 resulting from said probing step initiated by said first agent; and

5 adding to said first update message, a predefined code, said predefined  
6 code relating to said undetermined values.

1 20. The machine readable storage according to claim 19, wherein said repeating  
2 step comprises:

3 updating a second update message with determined metric values  
4 resulting from said probing initiated by a second agent, said determined  
5 metrics corresponding to said undetermined metrics resulting from said probing  
6 initiated by said first agent; and

7 adding a predefined code to said second update message, said  
8 predefined code relating to said determined metric values in said first update  
9 message.

1 21. The machine readable storage according to claim 20, wherein values within said  
2 fields of said first and said second update message are used to update values  
3 within said recipient graphical display, where said graphical display is updated  
4 using said determined metric values.

1 22. The machine readable storage according to claim 20, wherein said selected  
2 predefined code defines an action selected from the group consisting of  
3 disregarding a result from said probing step, indicating a problem with said  
4 probing step, and keeping an existing value of said metric without setting it.

23. The machine readable storage according to claim 16, wherein said metrics is at least one selected from the group consisting of a CPU load, network capacity, run queue size, connection, memory usage, page ins capacity, and a disk I/O.

24. A machine readable storage having stored thereon, a computer program having a plurality of code sections, the code sections executable by a machine for causing the machine to perform the steps of:

probing a component of the dynamic data space for determined and undetermined ones of selected metric values characterizing said component, the code sections for reporting a plurality of metrics for components of a dynamic data space;

reporting said determined metric values to a recipient graphical display interface; and

repeating said probing and reporting steps for said undetermined metric values.

25. The machine readable storage according to claim 24, wherein said probing and said reporting step occurs in a first agent.

26. The machine readable storage according to claim 25, wherein said repeating step occurs in a second agent.

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1 27. The machine readable storage according to claim 26, wherein said reporting step  
2 comprises:

3 updating a first update message with said determined metric values  
4 resulting from said probing step initiated by said first agent; and  
5 adding to said first update message a predefined code, said predefined  
6 code relating to said undetermined values.

1 28. The machine readable storage according to claim 27, wherein said repeating  
2 step comprises:

3 updating a second update message with determined metric values  
4 resulting from said probing initiated by a second agent, said determined metrics  
5 corresponding to said undetermined metrics resulting from said probing initiated  
6 by said first agent; and

7 adding a predefined code to said second update message, said  
8 predefined code relating to said determined metric values in said first update  
9 message.

1 29. The machine readable storage according to claim 28, wherein values within said  
2 fields of said first and said second update message are used to update values  
3 within said recipient graphical display, wherein said graphical display is updated  
4 using said determined metric values.



1 30. The machine readable storage according to claim 28, wherein said selected  
2 predefined code defines an action selected from the group consisting of  
3 disregarding a result from said probing step, indicating a problem with said  
4 probing step, and keeping an existing value of said metric without setting it.

1 31. The machine readable storage according to claim 28, wherein said component is  
2 a CDN component.

1 32. A dynamic CDN node metrics reporting system, comprising:  
2 a graphical display map for displaying a plurality of nodes and visual  
3 representations of reported metric values for characterizing components, said  
4 nodes representing said components; and  
5 a plurality of agents configured to probe said components for  
6 determined and undetermined ones of selected metric values, said agents  
7 reporting said determined metric values and codes representing said  
8 undetermined metric values to said graphical display map.

1 33. The system according to claim 32, wherein performance metric values are used  
2 to characterize said components.

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